CLAIMS

What is claimed is:

1. A method of controlling a digital projector, comprising:

receiving a request to turn on the digital projector;

receiving temperature data associated with a light source from a
temperature sensor;

comparing the temperature data to a predetermined threshold;

turning on a cooling device if the temperature data is above the
predetermined threshold and if a turn-on request has been received;
and

turning on the light source if the temperature data is at or below the
predetermined threshold and if a turn-on request has been received.

2. The method of claim **1** wherein the digital projector is selected from a
set of projectors including: an overhead projector, a video projector, a projection
television, and a cinema projector.

3. The method of claim **1** wherein the light-source is selected from a set
of lamps including xenon lamp and a high-pressure mercury vapor lamp.

4. The method of claim **1** wherein the predetermined threshold is
substantially the boiling point of mercury.

5. The method of claim **1** wherein the turn-on request received is from
an on/off control mounted on the digital projector.

6. The method of claim **1** wherein the turn-on request received from a
remote control.

7. The method of claim **1** wherein the received temperature data
comprises data taken in proximity to the light source.

8. The method of claim **1** wherein the received temperature data comprises data taken from the internal environment of the digital projector.

9. A method of controlling a digital projector, comprising:

displaying images with the digital projector using a light-source;

receiving a request to turn off the digital projector;

turning off the light-source in response to the request received; and

turning off a cooling device in response to the request and within a time frame without consideration of the light-source temperature.

10. The method of claim **9** wherein the time frame is selected from a set of time frames including: a substantially immediate time frame, a few seconds, and a convenient period of time for a user.

11. The method of claim **9** wherein the digital projector is selected from a set of projectors including: an overhead projector, a video projector, a projection television, and a cinema projector.

12. The method of claim **9** further comprising:

cooling the light-source passively upon receiving the turn-off request.

13. The method of claim **9** wherein the light-source is a high-pressure mercury vapor lamp.

14. The method of claim **9** wherein the turn-off request received is from an on/off control mounted on the digital projector.

15. The method of claim **9** wherein the turn-off request received from a remote control.

16. The method of claim **9** wherein the cooling device is a fan.

17. A light source control apparatus for a digital projector, comprising:

a light source for the projection of images;

a temperature sensor for measuring the temperature of the light source;

a cooling device for lowering the temperature of the light source;

an on/off control to activate the light source; and

a control mechanism for processing temperature data and determining light source control and cooling device control, wherein the light source is activated when below a temperature threshold.

18. The apparatus of claim **17** wherein the cooling device is turned on if the temperature data is above the predetermined threshold and if a turn-on request has been received; and

turning on the light source if the temperature data is at or below the predetermined threshold and if a turn-on request has been received.

19. The apparatus of claim **17** wherein the turning off the light-source in response to the request received; and

turning off a cooling device in response to the request and within a time frame without consideration of the light-source temperature.

20. The apparatus of claim **17** wherein a light source comprises a high-pressure mercury vapor lamp.

21. The apparatus of claim **17** wherein a temperature sensor comprises a resistive sensor.

22. The apparatus of claim **17** wherein a temperature sensor comprises a silicon PN-junction sensor.

23. The apparatus of claim **17** wherein a temperature sensor is mounted in proximity to the light source.

24. The apparatus of claim **17** wherein a temperature sensor is mounted within the body of the digital projector.

25. The apparatus of claim **17** wherein a cooling device comprises a fan.

26. The apparatus of claim **17** wherein a on/off control comprises a switch mounted on the digital projector.

27. The apparatus of claim **17** wherein an on/off control comprises a remote control.

28. The apparatus of claim **17** wherein a system controller comprises a computer system, integrated into digital projector, including a central processing unit, random access memory, mass storage, and access to an external network.

29. An apparatus for controlling a digital projector, comprising:

means for receiving a request to turn on the digital projector;

means for receiving temperature data associated with a light source from a temperature sensor;

means for comparing the temperature data to a predetermined threshold;

means for turning on a cooling device if the temperature data is above the predetermined threshold and if a turn-on request has been received; and

means for turning on the light source if the temperature data is at or below the predetermined threshold and if a turn-on request has been received.

30. An apparatus for controlling a digital projector, comprising:

means for displaying images with the digital projector using a light-source;

means for receiving a request to turn off the digital projector;

means for turning off the light-source in response to the request received; and

means for turning off a cooling device in response to the request and within a time frame without consideration of the light-source temperature.

31. A computer program product for controlling a digital projector, tangibly stored on a computer-readable medium, comprising instructions operable to cause a programmable processor to:

receive a request to turn on the digital projector;

receive temperature data associated with a light source from a temperature sensor;

compare the temperature data to a predetermined threshold;

turn on a cooling device if the temperature data is above the predetermined threshold and if a turn-on request has been received; and

turn on the light source if the temperature data is at or below the predetermined threshold and if a turn-on request has been received.

32. A computer program product for controlling a digital projector, tangibly stored on a computer-readable medium, comprising instructions operable to cause a programmable processor to:

display images with the digital projector using a light-source;

receive a request to turn off the digital projector;

turn off the light-source in response to the request received; and

turn off a cooling device in response to the request and within a time frame without consideration of the light-source temperature.